

Custom painting – beyond traditional finishes

Custom painting can be defined as the process of applying a finish to a vehicle that is different from what came from the factory. But generally, custom painting goes well beyond that. Flames streaking down the side of a sports car, murals on the side of a van, and candy finishes are examples of what comes to mind at the mere mention of the subject custom painting (see Figure 1).

CREATING these types of finishes is not as complicated as it appears, especially if you're comfortable applying a traditional basecoat/clearcoat finish. This article will focus on the different types of custom finishes, types of refinish materials, and any special equipment that may be required to apply a specific finish.

Types Of Custom Refinish Materials

At the birth of custom painting, nitrocellulose lacquer was the only material available. However, in the 1980s, urethane paints became the paint of choice for most custom painters. Acrylic urethanes and urethane enamels bond well, provide excellent protection from ultraviolet rays, and are durable.

Even though most paints are now urethane, there are still lacquer and enamel paints available for the restoration purist who is looking to capture that original appearance. Regardless of which paint is chosen, it is critical to stay with that system throughout the refinishing process. Mixing urethane and lacquer within a refinish job can ruin the new custom finish due to compatibility problems. Additionally, it is recommended to stay within one paint maker's system. Mixing products from different product makers may also lead to compatibility problems due to different paint chemistries.

Types of Finishes

Common types of custom finishes include candy coatings and pearl coats. A candy finish may be considered more of a refinish system rather than a simple coat of material (see Figure 2). While the actual candy coats are a unique translucent colour midcoat



Figure 1 - This custom finish shows a mix of flame designs.



Figure 2 - Candy finishes give the impression of depth in the finish.

applied over a basecoat colour, the final appearance will be based on the basecoat, flake (if any are used), and application of clearcoat. Some may compare the appearance of candy coats to that of a tinted clearcoat. A properly applied candy coating gives the appearance of depth in the completed finish.

Pearl is a paint additive that is made from mica or other substance that adds colour or a metallic sheen to the appearance of a finish. Pearls reflect light, but also allow some light to pass through and reflect off the basecoat below. This gives the illusion of depth and alters the hue. Pearls can also vary the appearance of the finish when it is viewed from different angles.

Many custom finishes, particularly candy finishes, contain flakes. Flakes are basically flat, reflective metal pigment made from a variety of materials. The use of flakes creates a sparkle-like appearance in the finish. Types of flakes used in custom painting may include:

- aluminum/metal – used for a more dramatic metallic effect.
- mica – a silicate added to paint to give paint its sparkly effect.
- coated glass.
- iron flake.
- polyester.
- colour-shifting flakes.

Flakes are either square, rectangular, or have a polygon shape and can be very small or fairly large (see Figure 3). Therefore, it is important that the gun being used has spray openings large enough to accommodate the flake being applied. Flakes that are too large for the spray nozzle will clog the spray gun. Some of the largest flakes used in custom painting will not fit through the nozzle of the spray gun and are blown onto a fresh finish using very light air.

Colour-Shifting Topcoats

Some effects, such as pearls, provide a slightly different appearance when viewed from different angles. In some instances, this creates a rainbow effect. However,



Figure 3 - Flakes are available in different sizes and the size selected is based on the desired effect.



Figure 4 - Colour-shifting topcoats give the finish a different colour appearance depending on the angle the finish is being viewed.



Figure 5 - A variety of designs can be combined to create the desired effect. Most custom paint artists don't settle on just one.

within the last decade, a specific paint is becoming more prevalent in the custom paint industry that provides a dramatic colour shift when a panel is viewed from different angles (see Figure 4). This paint has different names depending on the product maker. For example, House of Kolor calls theirs Kameleon, PPG calls theirs Harlequin, and DuPont calls theirs Mystichrome. When viewing a panel surface and depending on the colour of the material, the colour will change from a deep purple to a copper colour depending on the viewing angle.

Specialty Paints

Additional types of custom paints or specialty paints include neon or fluorescent colours, glow-in-the-dark, chrome, and temperature-resistant paint. Generally, these types of paints are used as accents to an existing colour coat.

It is generally not a good idea to cover an entire vehicle in these special-effect paints. One reason is that some paints, such as the neons, are not very durable and have a tendency to fade over time with exposure to the sun.

When using neon colours, it is recommended to apply them over a white basecoat for maximum brightness. When spraying neon paints, do not let the finish cure in the sun. The first 4–5 hours of cure time are critical in preventing colour fade, making sure to avoid sunlight, or keeping sunlight exposure to a minimum during this time.

Types of Designs

In addition to solid colours, many custom finishes have a design applied over the top



Figure 6 - Pinstriping brushes are designed to hold an adequate amount of paint so that long lines can be created without having to constantly dip the brush back into the paint.



Figure 7 - An example of an illustration created using a template.

of a custom basecoat. Common designs include flames, skulls, and geometric designs to name a few (see Figure 5). To achieve the desired detail, this type of work is often done with an airbrush. If creating an illustration, templates are available that can be used to help achieve the appearance (see Figure 7). Some airbrush artists, however, have the skills to freehand a design without the use of a template.

Pinstriping

Pinstriping is the process of using a small, thin brush to create long, even, steady lines on a panel surface (see Figure 6). The brushes used are specific to pinstriping and come in multiple shapes and sizes. In general, pinstriping brushes have longer brush hair length and many of the pinstriping brushes are tapered on one side.

There are two main tools to choose from when it comes to pinstriping, swords or daggers. The sword's longest hair is on the top and then it slowly tapers back to a short length on the underside. A dagger comes to a point and is double-edged. The dagger design provides greater control when painting intricate designs. Depending on the complexity of the design, a shorter haired

brush may provide greater control over the longer haired brushes.

Proper pinstriping technique takes lots of practice to achieve a straight, consistent line with the same thickness throughout. This can be particularly challenging when laying down a stripe the length of a vehicle.

Conclusion

Custom painting can provide unique alternatives to traditional factory finishes. Learning the different types of finishes available, in addition to specific tools and application techniques is the beginning of the custom painting process. I-CAR currently offers online training programs that expand upon these areas including Introduction to Custom Painting (ISP01) which can be accessed at www.i-car.co.nz. For further training beyond the online programs, many of the paint makers offer hands-on training with their specific custom painting products and equipment. **I**

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